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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,659	11/06/2001	Ying Chen	JP920000306US1	8505

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IBM CORPORATION
INTELLECTUAL PROPERTY LAW DEPT.
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EXAMINER

DANIEL JR, WILLIE J

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 06/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/992,659

Applicant(s)

CHEN ET AL.

Examiner

Willie J. Daniel, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 06 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:
 - a. Fig. 1 ref. "S101", "S105", "S108", "S109".
 - b. Fig. 2 ref. "S202".
 - c. Fig. 3 ref. "S301-S307" and "S309-S312".

Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

- a. The Applicant uses the acronyms "PvC" on pg. 4, line 11 and "LBT" on pg. 4, line 23 without providing an explanation.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-10, 12-18 are rejected under 35 U.S.C. 102(b) as being anticipated by **Craport et al.** (hereinafter Craport) (US 5,961,572).

Regarding **Claim 1**, Craport discloses of method for locating position for a handheld device (20) which reads on the claimed “mobile commutation device”, where the hand-held device is referred to as a personal computer (see col. 11, lines 30-33; col. 12, lines 25-39; Fig. 1), comprising:

inputting latitude/longitude which reads on the claimed “geo-indicators” (Gi-i, Gi-2, . . . , Gi-n) based on text (e.g., address, zip codes, or intersections) by a user with the mobile ^{nic}commutation device (20) (see col. 3, line 41 - col. 4, line 59; col. 15, lines 40-67; col. 14, line 66 - col. 15, line 15; Fig. 1 and 3A “ref. 302”), where the text such as the address is provided ^{and the} in ~~which the~~ address is geocoded by a geocoder into a reference latitude/longitude point;

transmitting the geo-indicators to a remote computer system (49) which read on the claimed “back end server” (see col. 13, line 45 - col. 14, line 30; col. 15, line 40 - col. 16, line 24), where the geo-indicators (latitude/longitude) are transmitted to the geographic libraries that are connected to the remote server (49) (see Fig. 1);

generating an address match candidate which reads on the claimed “candidate feature set” for each geo-indicator by applying geocoding which maps the text address to a geo-location

based on a geographic point libraries (210) which read on the claimed “back end spatial database” (see col. 14, lines 23-35; col. 15, line 41 - col. 16, line 51; col. 18, line 57 - col. 19, line 27; Figs. 3A-3C), where the address match candidates (address, modified address, intersection, landmark, or zip code) are used to help determine the location;

deciding the final geo-location information by geocustering the candidate feature set (see col. 16, lines 40-51; col. 17, lines 9-28; col. 18, line 57 - col. 19, line 27; Figs. 3A-3C), where the location is compared to the address match candidate to determine the location; and

transmitting the geo-location information to the mobile communication device (20) (see col. 11, lines 30-33; col. 16, lines 40-51; Figs. 3A-C), where the address match candidate is transmitted back to the GUI of the handheld device with the address location which would be inherent for the user to get the information relative to the current location.

Regarding **Claim 2**, Craport discloses a method for locating position for a mobile communication device according to claim 1, wherein the geo-indicators (Gi-1, Gi-2, . . . , Gi-n) are based on text inputted by the user with the mobile commutation device (20), Gi-j is an item selected from a group of items including: a street name, a building name, a postal code, a telephone number, and any combination of these (see col. 3, line 41 - col. 4, line 59; col. 15, lines 40-67; col. 14, line 66 - col. 15, line 15; col. 18, line 57 - col. 19, line 27; Fig. 1, 3A “ref. 302”, and 4-11), where the text such as the address is provided in which the address is geocoded by a geocoder into a reference latitude/longitude point for comparing the location to the address match candidate.

Regarding **Claim 4**, Craport discloses a method for locating position for a mobile communication device according to claim 1, wherein said candidate feature set is a set of points determined from an item in a group of items including: a building name, a set of lines determined by a road name, a polygon determined by a postal code, a telephone number, and any combination of these (see col. 15, line 41 - col. 16, line 51; col. 18, line 57 - col. 19, line 27), where the address match candidate are candidates such address, modified address, landmark, intersection, or zip code).

Regarding **Claim 5**, Craport discloses a method for locating position for a mobile communication device (20) according to claim 1, wherein said candidate feature set is labeled with a confidence level (see col. 16, line 40 - col. 17, line 28; col. 17, lines 29-62; Figs. 3A-C), where the address match candidate is compared with potential geographic locations in which the confidence level would be inherent.

Regarding **Claim 6**, Craport discloses a method for locating position for a mobile communication device (20) according to claim 5, wherein the geometry relationship and confidence level is taken into account when geocustering said candidate feature set (see col. 16, line 40 - col. 17, line 28; col. 17, line 29 - col. 18, line 6; col. 20, line 55 - col. 21, line 35; col. 27, line 46 - col. 28, line 40; Figs. 3A-C; 10-12), where the address match candidate (e.g., intersection, region, or area) is compared with potential geographic locations in which the confidence level would be inherent to determine location.

Regarding **Claim 7**, Craport discloses method for locating position for a mobile communication device according to claim 1, further comprising a step of feeding back a choice made by the user and/or adding an additional geo-indicator inputted by the user, in

order to locate said position precisely (see col. 3, lines 40-49; col. 3, line 61 - col. 4, line 40; col. 11, lines 30-33; Figs. 3A-C), where the system provides an address match candidate that is transmitted back to the GUI of the handheld device with the address location of the user.

Regarding **Claim 8**, Craport discloses a system for locating position for a mobile communication device (20), comprising:

a mobile communication device (20), for inputting geo-indicators (Gi-1, Gi-2, . . . , Gi-n) based on text (see col. 3, line 41 - col. 4, line 59; col. 15, lines 40-67; col. 14, line 66 - col. 15, line 15; Fig. 1 and 3A “ref. 302”), where the text such as the address is provided in which the address is geocoded by a geocoder into a reference latitude/longitude point;

geocoder (208) which reads on the claimed “geo-location generating means”, for generating a candidate feature set for each geo-indicator by applying geocoding which maps the text address to an geo-location based on a back end spatial database (210) (see col. 14, lines 23-35; col. 15, line 41 - col. 16, lines 51; col. 18, line 57 - col. 19, line 27; Figs. 3A-3C), where the address match candidates (address, modified address, intersection, landmark, or zip code) are used to help determine the location; and

application (36a) which reads on the claimed “clustering means”, for deciding the final geo-location information by geocustering the candidate feature set (see col. 15, line 41 - col. 16, lines 51; Figs. 2 and 3A-C), where the application compares the address match candidate.

Regarding **Claim 9**, Craport discloses a system for locating position for a mobile communication device according to claim 8, wherein said mobile communication device (20) is a hand-held device (20) which reads on the claimed “WAP phone or a PDA” (see col. 11, lines 31-40; col. 12, lines 20-31; Fig. 1), where the personal computer is a hand-held device.

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Regarding **Claim 10**, the claim is rejected for the same reasons as set forth above in claim 2.

Regarding **Claim 12**, the claim is rejected for the same reasons as set forth above in claim 4.

Regarding **Claim 13**, the claim is rejected for the same reasons as set forth above in claim 5.

Regarding **Claim 14**, the claim is rejected for the same reasons as set forth above in claim 6.

Regarding **Claim 15**, the claim is rejected for the same reasons as set forth above in claim 7.

Regarding **Claim 16**, the claim is rejected for the same reasons as set forth above in claim 1, in which the article of manufacture would be inherent.

Regarding **Claim 17**, the claim is rejected for the same reasons as set forth above in claim 1, in which the program storage device would be inherent.

Regarding **Claim 18**, the claim is rejected for the same reasons as set forth above in claim 8, in which the computer program product would be inherent.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Craport et al.** (hereinafter Craport) (**US 5,961,572**) in view of **Hancock et al.** (hereinafter Hancock) (**US 6,295,502**).

Regarding **Claim 3**, Craport discloses a method for locating position for a mobile communication device (20) according to claim 1, wherein the geo-indicators (Gi-1, Gi-2, . . . , Gi-n) are based on text inputted by the users with the mobile commutation device (20), Gi-j is selected from a group including a street name and/or a building name, a local code of a postal code, a telephone number, and any combination of these (see col. 14, lines 7-35; col. 15, line 66), where the address is converted by the geocoder in latitude/longitude for referencing to a geographic location. Craport fails to disclose having the geo-indicators selected from a group including an abbreviation of a street name and/or a building name, a local code of a postal code, a telephone number, and any combination of these. However, the examiner maintains that geo-indicators selected from a group including an abbreviation of a street name and/or a building name, a local code of a postal code, a telephone number, and any combination of these was well known in the art, as taught by Hancock.

In the same field of endeavor, Hancock discloses geo-indicators selected from a group including an abbreviation of a street name and/or a building name, a local code of a

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postal code, a telephone number, and any combination of these (see col. 5, lines 53-60; col. 20, lines 21-39; Figs. 12b-c and 13), where the system correlates latitude/longitude (geo-indicators) with the abbreviation of a city, address, restaurants, or buildings.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Craport and Hancock geo-indicators selected from a group including an abbreviation of a street name and/or a building name, a local code of a postal code, a telephone number, and any combination of these, in order to correlate the location of latitude/longitude with the abbreviated a street name or building name, as taught by Hancock.

Regarding **Claim 11**, the claim is rejected for the same reasons as set forth above in claim 3.

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Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. DeLorme et al. (US 5,848,373) discloses a "Computer Aided Map Location System".

b. Kepler (US 6,748,225 B1) discloses a "Method and System for the Determination of Location By Retail Signage and Other Readily Recognizable Landmarks".

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willie J. Daniel, Jr. whose telephone number is (703) 305-8636. The examiner can normally be reached on 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WJD,JR/wjd,jr
17 June 2004


CHARLES APPIAH
PRIMARY EXAMINER